IN THE CLAIMS

Please amend the claims as follows:

1. **(Previously presented)** A process for converting a feedstock into at least one useful material, comprising:

preparing a slurry from the feedstock, wherein the feedstock includes at least one of animal processing waste, mixed plastics, PVC, and rubber;

reacting the slurry in a first reaction to produce a reacted feed comprising at least one reacted solid product, at least one reacted liquid product, and water;

separating said at least one reacted solid product, said water, and said at least one reacted liquid product from said reacted feed; and

converting said at least one reacted liquid product into at least one useful material.

2. **(Previously presented)** The process of claim 1, wherein said at least one useful material comprises carbon solids.

3. **(Previously presented)** The process of claim I, wherein said at least one useful material comprises a mixture of hydrocarbons.

4. **(Previously presented)** The process of claim 3, wherein said mixture of hydrocarbons comprises a fuel gas and an oil.

5. **(Previously presented)** The process of claim 1, wherein said preparing comprises driving off ammonia from said feedstock.

6. **(Previously presented)** The process of claim 1, wherein said first reaction takes place at a pressure ranging from about 20-120 atmospheres.

7. **(Previously presented)** The process of claim 6, wherein said pressure is about 50 atmospheres.

8. **(Previously presented)** The process of claim 1, wherein said first reaction takes place at a temperature ranging from about 150°C to about 330°C.

9. **(Previously presented)** The process of claim 1, wherein said reacting drives off at least one contaminant.

10. **(Previously presented)** The process of claim 9, wherein said at least one contaminant is sulfur-containing material.

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11. **(Previously presented)** The process of claim 9, wherein said at least one contaminant is a mercury-containing material.

12. **(Previously presented)** The process of claim 9, wherein said at least one contaminant is a halogen-containing compound.

13. **(Previously presented)** The process of claim 1, wherein said reacting drives off steam.

14. **(Previously presented)** The process of claim 13, wherein said steam is redirected to heat said slurry during said preparing.

15. **(Previously presented)** The process of claim I, wherein said separating comprises a first separation and a second separation.

16. **(Previously presented)** The process of claim 1, wherein said at least one reacted liquid product comprises at least one fat derivative or fatty acid.

17. **(Previously presented)** The process of claim I, wherein said at least one reacted solid product comprises at least one mineral compound.

18. **(Previously presented)** The process of claim 1, further comprising, prior to said converting, diverting a portion of said at least one reacted liquid product and separately converting said portion into at least one specialty chemical.

19. **(Previously presented)** The process of claim 18, wherein said at least one specialty chemical comprises a fatty acid.

20. **(Canceled)**

21. **(Previously presented)** The process of claim 1, wherein said at least one useful material is pathogen-free.

22. **(Currently amended)** The process of claim 1, wherein said feedstock ~~comprises~~ is rubber materials.

23. **(Previously presented)** The process of claim 22, wherein said feedstock comprises one or more tires.

24.-25. **(Canceled)**

26. **(Currently amended)** The process of claim 1, wherein said feedstock ~~includes~~ is animal processing waste.

27. **(Currently amended)** The process of claim 1, wherein said feedstock ~~includes~~ is mixed plastics.

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28. **(Currently amended)** The process of claim ~~1~~27, wherein said ~~feedstock includes~~mixed plastics include PVC.

29. **(Previously presented)** The process of claim 28, wherein said first reacting drives off at least one chlorine-containing contaminant.

30. **(Previously presented)** The process of claim 26, wherein the animal processing waste comprises animal manure.

31-39. **(Canceled)**

40. **(Previously presented)** The process of claim 1, wherein said at least one useful material is a carbonaceous material.

41. **(Previously presented)** The process of claim 40, wherein the carbonaceous material is depleted of mercury-containing contaminants.

42. **(Previously presented)** The process of claim 40, wherein the carbonaceous material is depleted of sulfur-containing contaminants.

43-47. **(Canceled)**

48. **(Previously presented)** A process for converting a feedstock into at least one useful material, comprising:

preparing a slurry from the feedstock;

passing the slurry through a heat exchanger, wherein one or more gases is vented, to produce a conditioned slurry;

reacting the conditioned slurry in a first reaction, wherein steam and gas is liberated, to produce a reacted feed comprising at least one reacted solid product, at least one reacted liquid product, and water, wherein the reacted solid product comprises at least one mineral; lowering a temperature, and lowering a pressure, of the reacted feed, to produce an intermediate feed;

separating the at least one mineral from the intermediate feed, thereby producing a mixture comprising at least one reacted liquid product, and water;

diverting said water to storage; and

converting said at least one reacted liquid product to produce carbon solids and a mixture of hydrocarbon vapor and gases.

49-64. **(Canceled)**

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65. **(Previously presented)** A process for converting tires into oil, comprising:

dissolving the tires in a solvent;

preparing a slurry from the tires;

reacting the slurry with water in a first reaction to produce a reacted feed comprising at least one reacted solid product, at least one reacted liquid product;

separating said at least one reacted solid product, said water, and said at least one reacted liquid product from said reacted feed; and

converting said at least one reacted liquid product into oil.

66. **(Previously presented)** The process of claim 65, wherein the first reaction takes place at a temperature ranging from about 250°C to about 400°C.

67. **(Canceled)**

68. **(Previously presented)** The process of claim 65, wherein the solvent is an oil obtained from said converting.

69. **(Previously presented)** A process for converting mixed plastics into at least one useful material, comprising:

preparing a slurry from the mixed plastics;

reacting the slurry with water in a first reaction to produce a reacted feed comprising at least one reacted solid product, at least one reacted liquid product;

separating said at least one reacted solid product, said water, and said at least one reacted liquid product from said reacted feed; and

converting said at least one reacted liquid product into at least one useful material.

70. **(Previously presented)** The process of claim 69, wherein the first reaction takes place at a temperature ranging from about 300° to about 525°C.

71. **(Previously presented)** The process of claim 69, wherein said converting takes place at a temperature ranging from about 300°C to about 525°C.

72.-74. **(Canceled)**

75. **(Previously presented)** A process for converting animal processing waste into at least one useful material, comprising:

preparing a slurry from the animal processing waste;

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reacting the slurry in a first reaction to produce a reacted feed comprising at least one reacted solid product, and at least one reacted liquid product, and water;

separating the at least one reacted solid product, the water, and the at least one reacted liquid product from the reacted feed; and

converting the at least one reacted liquid product into a mixture of hydrocarbon oils, fuel gas, and carbon.

76. **(Previously presented)** The process of claim 75, wherein the first reaction takes place at a temperature ranging from about 150°C to about 330°C.

77. **(Previously presented)** The process of claim 75, wherein said converting takes place at a temperature ranging from about 300°C to about 525°C.

78. **(Previously presented)** The process of claim 75, wherein the first reaction takes place at about 250°C.

79. **(Previously presented)** The process of claim 75, wherein the first reaction takes place at a pressure ranging from 20-120 atmospheres.

80. **(Previously presented)** The process of claim 75, wherein the first reaction takes place at a pressure of about 50 atmospheres.

81. **(Previously presented)** The process of claim 75, wherein the animal processing waste comprises animal offal.

82. **(Previously presented)** The process of claim 81, wherein the animal offal comprises turkey offal.

83. **(Canceled)**

84. **(Previously presented)** The process of claim 26, wherein said animal processing waste comprises animal offal.

85. **(Previously presented)** The process of claim 84, wherein said animal offal comprises turkey offal.

86. **(Previously presented)** The process of claim 75, wherein the animal processing waste comprises animal manure.

87. **(Previously presented)** The process of claim I, wherein said converting comprises separating water from the reacted liquid product.

88. **(Previously presented)** The process of claim 87, wherein a fuel oil is produced by said converting.

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89. **(Previously presented)** The process of claim 87, wherein said converting further comprises subjecting said at least one reacted liquid product to at least a second reaction.

90. **(Previously presented)** The process of claim 89, wherein the second reaction takes place at a temperature between about 300°C to about 525°C.

91. **(Previously presented)** The process of claim 89, wherein the second reaction comprises cracking the liquid hydrocarbon fuel.

92. **(Previously presented)** The process of claim 1, wherein said converting takes place at a temperature ranging from about 400°C to about 600°C.

93. **(Previously presented)** The process of claim 1, wherein said reacting comprises decomposing and hydrolyzing the feedstock.

94. **(Previously presented)** The process of claim 92, wherein the decomposing comprises deaminating the feedstock.

95. **(Previously presented)** The process of claim 93, wherein the decomposing further comprises decarboxylating the feedstock.

96. **(Previously presented)** A process for converting a feedstock into at least one useful material, comprising:

providing a feedstock including at least one of animal processing waste, mixed plastics, PVC and rubber;

slurrying the feedstock to form a slurry;

subjecting the slurry to temperature and pressure sufficient to produce a decomposition reaction in said slurry;

subjecting the slurry to temperature and pressure sufficient to produce a hydrolysis reaction in said slurry;

separating liquid, gaseous and solid fractions produced in said slurry by the decomposition and hydrolysis reactions;

separating water from the separated liquid to provide a fuel oil.

97. **(Previously presented)** The process of claim 96, wherein the decomposition reaction comprises deamination and decarboxylation.

98. **(Previously presented)** The process of claim 97, wherein the decomposition reaction and the hydrolysis reaction occur simultaneously.

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99. **(Previously presented)** The process of claim 96, wherein slurrying comprises reducing particle size of the feedstock and fluidizing.

100. **(Previously presented)** The process of claim 96, wherein slurrying further comprises adding a solvent.

101. **(Previously presented)** The process of clam 97, wherein the temperature and pressure of the hydrolysis reaction are about 200ºC to about 290ºC.

102. **(Previously presented)** The process of claim 96, further comprising cracking the fuel oil.

103. **(Previously presented)** The process of claim 96, further comprising fractional distilling of the fuel oil to produce at least a heavy oil and a light oil.

104. **(Previously presented)** The process of claim 103, further comprising cracking the heavy oil.

105. **(Previously presented)** The process of claim 96, wherein said animal processing waste comprises turkey offal.

106. **(Previously presented)** The process of claim 96, wherein said mixed plastics include PVC.

107. **(Previously presented)** The process of claim 96, where said rubber comprises tires.

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